

J. G. Ernst.

Saw Set.

N^o 14,188.

Patented Feb. 5, 1856.

Fig. 2

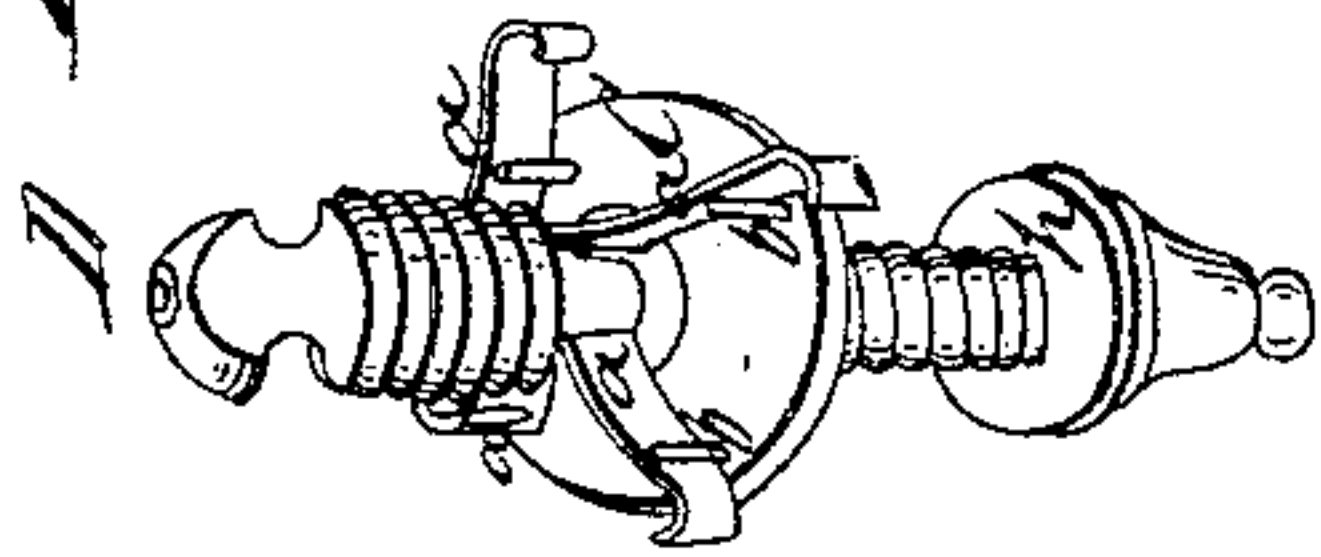


Fig. 3

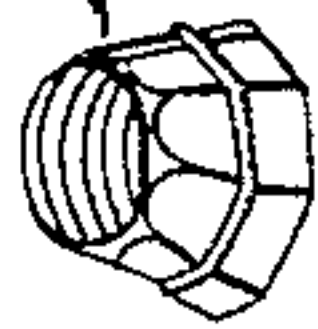
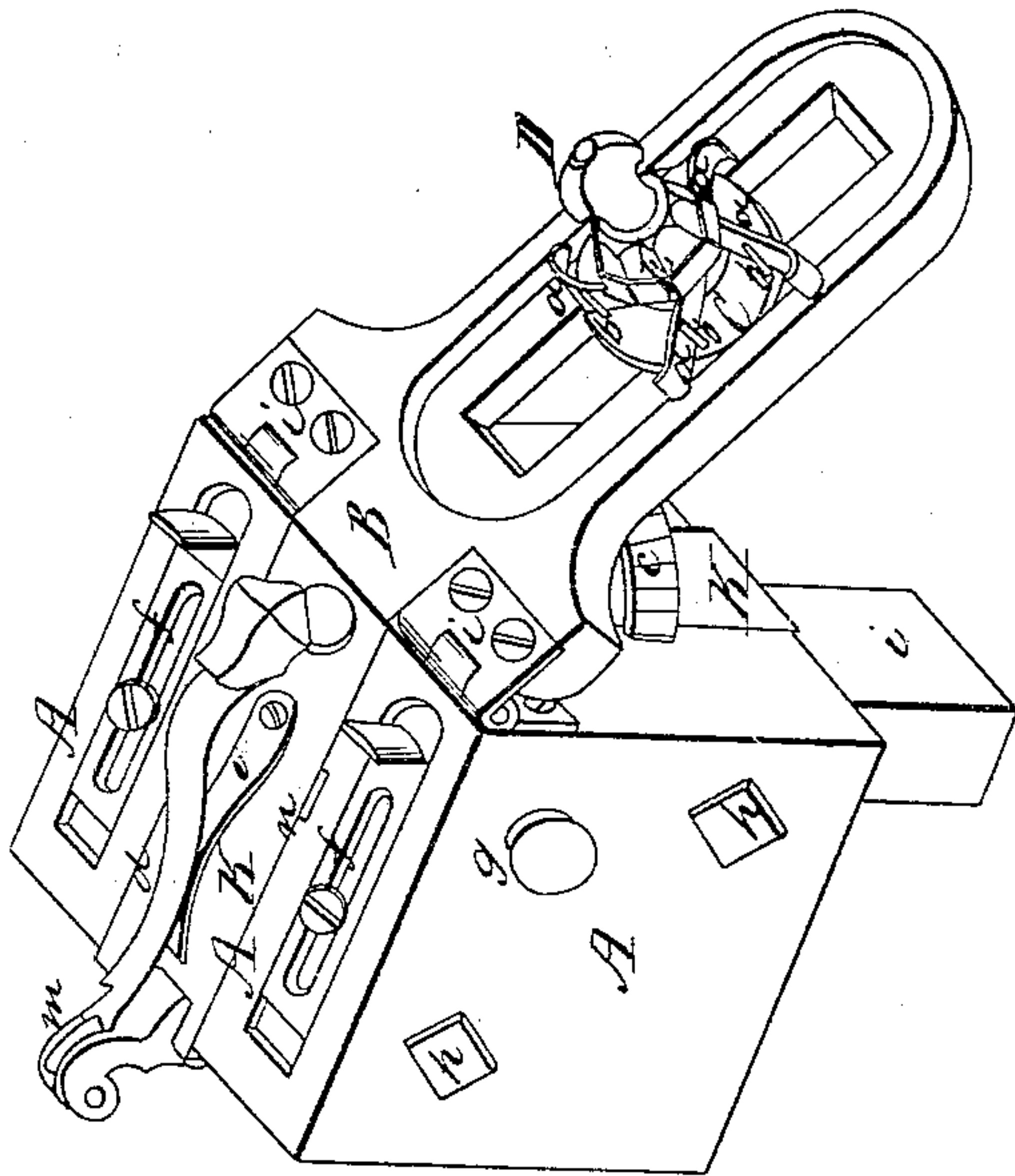


Fig. 1



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN G. ERNST, OF YORK, PENNSYLVANIA.

SAW-SET.

Specification of Letters Patent No. 14,188, dated February 5, 1856.

To all whom it may concern:

Be it known that I, JOHN GODFRED ERNST, of York, in the county of York and State of Pennsylvania, have invented a new and useful Improvement in Machines for Setting Saws, the part claimed applying entirely to circular saws; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view, Fig. 2, is an adjustable center key; Fig. 3, a securing nut.

The object of my invention is to produce a center upon which a saw can revolve, (thus bringing the teeth under the hammer with uniform correctness,) as exemplified in the drawings, the expanding arms *a, a*, forming at their outer extremities a circuit upon which the saw turns produce a center which can be expanded or contracted to suit the center hole in different saws. The arms it will be perceived by reference to Fig. 2, are hinged to the screw *D* which being turned plays them upon the plate *C*. The arms are peculiarly curved to enable them to work between the plate pins on either side of them, the pins serving as guides when the screw *D* being turned expands or contracts them. The adjustable center key Fig. 2 being placed upon the slotted leaf *B* operates in the slot back and forth and is secured at any point by the nut *K* upon the screw *D*, as shown in Fig. 2. The leaf *B* being hinged upon the blocks *A, A*, is supported and adjusted to any inclination by the circular pieces *c*, operating in the circular grooves *n, n*, the pieces *c* being secured at any desired point by the screws *g*.

E is a nut applied to the screw *D* over

the arms *a, a, a, a*, for the purpose of screwing them at any desired expansion. The slides *f, f*, are used as stops for hand-saws regulating the distance while the teeth can be brought under the hammer *d*, which is supported by the spring *e*. When the saw is caused to revolve around the arms *a, a, a, a*, the teeth come under the hammer *d*, which is struck down upon them as they are presented. Any required width of set is given by the inclination of the leaf *B* at the proper angle. The whole is constructed, first by securing the cast iron block *K* between the wooden blocks *A, A*, by means of the bolts *h, h*, the leaf *B* being attached to the blocks *A, A* by the hinges *i i*, and the hammer *d* to the projection *m* of the block *K* by a pin passing through both. Fig. 2 is constructed of the screw *D*, the plate *G* the arms *a, a, a, a* and the nut *K* connected in the manner shown, and then applied to the slot in the leaf *B*, Fig. 3 being also upon the screw *D*. The manner of using the center key, is by placing the saw upon the leaf *B* the arms *a, a, a, a* coming within the center hole of the saw. The screw *D* being then turned in the proper direction expands the arms *a, a, a, a* so that their outer extremities are presented against the inside edge of the saw. The nut *E* is then turned upon the arms *a, a, a, a*, securing them in their position, when the saw can be revolved and set as aforesaid.

What I claim as my invention and desire to secure by Letters Patent, is,

The use of the expanding arms *a, a, a, a*, in connection with the plate *G*, and screw nut *E*, arranged and operated in the manner herein described.

JOHN GODFRED ERNST.

Witnesses:

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